

## **REMARKS**

This is a full and timely response to the outstanding non-final Office Action mailed February 20, 2007. The Examiner is thanked for the thorough examination of the present application. Upon entry of this response, claims 1-16 are pending in the present application. (Applicants respectfully point out that the Office Action Summary erroneously indicates that claims 1-19 are pending.) Applicants respectfully request consideration of the following remarks contained herein. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

### **I. Indication of Allowable Subject Matter**

Applicants would like to first thank the Examiner for indicating on page 10 of the Office Action that claims 10-16 would be allowable if rewritten to overcome the rejections under 35 U.S.C. §112, 2<sup>nd</sup> paragraph and to include all the limitations of the base claim and any intervening claims. As indicated above, amendments have been made to overcome the §112, 2<sup>nd</sup> paragraph rejection.

### **II. Drawings**

On page 2, the Office Action indicates that the drawings are objected to under 37 C.F.R. 1.83(a) as allegedly failing *“to show Step 1, Step 2, and step 3 smart DSL concept for LDSL as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be in the drawing. MPEP § 608.02(d).”* On page 3, the Office Action further indicates that the drawings are also objected to and that *“the drawings must show every feature of the invention specified in*

*the claims. Therefore, the method for implementing DSL for LDSL, as claimed in claims 1-9 must be shown or the feature(s) canceled from the claim(s)."*

Applicants respectfully traverse the objections to the drawings for at least the reason that 37 C.F.R.. §1.81 states (emphasis added): "[t]he applicant for a patent is required to furnish a drawing of his or her invention where necessary for the understanding of the subject matter sought to be patented." Applicants respectfully submit that 37 C.F.R. §1.83 must be read in conjunction with 37 C.F.R. §1.81. Even though the Examiner is unable to find the features in the drawings, Applicants submit that drawings of these features are not needed for understanding of the claimed subject matter. Furthermore, Applicants note that numerous patents are issued without any drawings. Thus, 37 C.F.R. § 1.83(a) is not an absolute mandate. For the reasons set forth above, no drawing amendments, or new drawings, are believed to be required in response to the raised objections. Accordingly, Applicants respectfully request that the objections to the drawings be withdrawn.

### **III. Objections to the Specification**

On page 4, the Office Action raises the following objections to the specification. First, the Office Action alleges that the title of the invention is not descriptive. The abstract is objected to because it does not include any language regarding upstream masks. As indicated above, Applicants have amended both the title and the abstract to over these objections.

The Office Action further indicates on page 4 that the disclosure is objected to because of various informalities. Specifically, the specification allegedly contains

*“numerous abbreviations with improper format.”* As indicated above, the specification has been amended to overcome this objection. Regarding paragraph 13 in the specification, Applicants would like to note that the term “SBC” relates to the company SBC Communications, Inc. While the company was previously known as Southwestern Bell Corp., the name of the company was later changed to SBC Communications.

Accordingly, Applicants respectfully request that the objection to the specification be withdrawn.

#### **IV. Response to Claim Rejections Under 35 U.S.C. § 112, 2<sup>nd</sup> Paragraph**

On page 5, the Office Action rejects claim 1 as allegedly being incomplete for *“omitting essential elements, such omission amounting to a gap between the elements.”* Specifically, the Office Action states that the omitted elements are “the optimized candidate system.” As indicated above, Applicants have amended claim 1 and respectfully request that the §112, 2<sup>nd</sup> paragraph rejection be withdrawn.

**V. Response to Claim Rejections Under 35 U.S.C. § 102**

Claims 1-9 stand rejected under 35 U.S.C. §102(e) as allegedly being anticipated by *Darveau* (U.S. Pat. No. 6,760,383). For at least the reasons set forth below, Applicants traverse these rejections.

**Independent Claim 1**

Claim 1, as amended, recites (emphasis added):

1. A method for implementing smart Digital Subscriber Line (DSL) for Long reach Digital Subscriber Line (LDSL) systems, the method comprising:

**defining a candidate system to be implemented by an LDSL system, wherein defining a candidate system comprises defining a number of power spectral density (PSD) masks;**

optimizing criteria associated with the candidate system to create an optimized candidate system; and

selecting the optimized candidate system to implement in an LDSL system.

On page 6, the Office Action alleges that *Darveau* teaches each of the elements recited in claim 1. Applicants have amended claim 1 to overcome the §112, 2<sup>nd</sup> rejection discussed earlier as well as to clarify certain novel features. Applicants submit that no new matter is added by the amendment.

Applicants submit that *Darveau* fails to disclose, teach, or suggest the feature of “defining a candidate system to be implemented by an LDSL system, wherein defining a candidate system comprises defining a number of power spectral density (PSD) masks,” as recited in claim 1. In amending claim 1, Applicants have canceled dependent claim 9, which is directed to masks. In rejecting claim 9, the Office Action referred to FIGS. 7-9 in the *Darveau* reference in alleging that *Darveau* teaches of “defining a number of masks.” However, Applicants respectfully submit that *Darveau*

fails to teach of defining a number of power spectral density (PSD) masks. In amending claim 1, Applicants have clarified that the "masks" recited in the claim refers to power spectral density (PSD) masks. Applicants refer to the BRIEF DESCRIPTION OF THE DRAWINGS section in the *Darveau* reference (emphasis added):

**FIG. 7** is a table defining signal parameters as they apply to an embodiment of the invention using QAM/CAP signal modulation techniques for downstream transmission signals and PAM signal modulation techniques for the upstream transmission signals.

**FIG. 8** is a table defining signal parameters as they apply to an embodiment of the invention using QAM/CAP signal modulation techniques for both downstream and upstream transmission signals.

**FIG. 9** is "a table defining carrier allocations as they apply to two embodiments of the invention using DMT signal modulation techniques for the downstream and upstream transmission signals.

As clearly seen in the brief descriptions above (as well as in the related text) for the figures cited by the Office Action, *Darveau* fails to disclose any type of power spectral density (PSD) masks.

Accordingly, Applicants respectfully submits that independent claim 1 patently defines over *Darveau* for at least the reason that *Darveau* fails to disclose, teach or suggest the features emphasized in claim 1 above.

### **Dependent Claims 2-8**

Applicants submit that dependent claims 2-8 are allowable for at least the reason that these claims depend from an allowable independent claim. See, e.g., *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

**VI. Double Patenting Rejection**

On pages 8-10, the Office Action provisionally rejects claims 1-8 under 35 U.S.C. §101 as claiming the same invention as that of claims 1-8 in co-pending Application No. 10/714,661. Claim 9 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting. In response to these rejections Applicants have expressly abandoned Application No. 10/714,661 and submit that the double-patenting rejections are rendered moot.

**VII. Prior Art Made of Record**

The prior art made of record has been considered, but is not believed to affect the patentability of the presently pending claims.

**CONCLUSION**

Applicants respectfully submit that all pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephone conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

No fee is believed to be due in connection with this amendment and response to Office Action. If, however, any fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 50-0835.

Respectfully submitted,

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